

Applicant : Jay M. Short et al.
Serial No : 09/580,515
Filed : May 25, 2000
Page : 2

Attorney's Docket No.: 09010-029005

AMENDMENT

Please amend the application as follows:

In the claims:

Please replace claims 18, 41-43, 55, 56-59, 63-65, and 67 with amended claims 18, 41-43, 47-49, 51, 55, 56-59, and 67 as follows:

-- 18. (Thrice Amended) A method to produce a foodstuff containing a microbial phytase comprising:

a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from

i) SEQ ID NO: 1, and

ii) SEQ ID NO: 1, wherein T can also be U;

b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed as a polypeptide; and

c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the [animal feed] foodstuff contains phytate and the phytase.

41. (Amended) The method of claim 18, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.

42. (Amended) The method of claim 18, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.

43. (Amended) The method of claim 41, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.

Applicant : Jay M. Short et al
Serial No. : 09/580,515
Filed : May 25, 2000
Page : 3

Attorney's Docket No.: 09010-029005

C3
51. (Amended) The method of claim 18, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having the nucleotide sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.

55. (Amended) The method of claim 18, wherein the plant cells, plant part, or plant is of a monocotyledonous species.

56. (Amended) A method to produce a foodstuff containing a microbial phytase comprising:

a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
i) a sequence encoding a polypeptide sequence as set forth in SEQ ID NO:2
and

C4
ii) a sequence encoding the polypeptide sequence as set forth in SEQ ID NO:2, wherein T can also be U;

b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed; and

c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.

57. (Amended) The method of claim 56, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.

58. (Amended) The method of claim 56, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.

59. (Amended) The method of claim 57, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.

Applicant : Jay M. Short et al.
Serial No. : 09/580,515
Filed : May 25, 2000
Page : 4

Attorney's Docket No.: 09010-029005

C5
67. (Amended) The method of claim 56, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having a sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions. --

Please add new claims 72-79.

-- 72. (New) The method of claim 18, wherein the foodstuff is an animal feed.

73. (New) The method of claim 47, wherein the foodstuff is an animal feed.

C6
74. (New) The method of claim 48, wherein the foodstuff is an animal feed.

75. (New) The method of claim 49, wherein the foodstuff is an animal feed.

76. (New) The method of claim 56, wherein the foodstuff is an animal feed.

77. (New) The method of claim 63, wherein the foodstuff is an animal feed.

78. (New) The method of claim 64, wherein the foodstuff is an animal feed.

79. (New) The method of claim 65, wherein the foodstuff is an animal feed. --